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REMARKS

Claims 1, 2, and 4-14 were pending in the present Application. Claims 8 and 10 have been amended and Claim 4 has been cancelled, leaving Claims 1, 2 and 5-14 for consideration upon entry of the present Amendment. No new matter has been introduced by these amendments. Specifically, a feature has been removed from Claim 8 and incorporated into Claim 10. Support for this amendment can be found at least in Claims 8 and 10 as originally filed.

Reconsideration and allowance of the claims are respectfully requested in view of the above amendments and the following remarks.

Claim Rejections Under 35 U.S.C. § 102(e)

Claims 8 and 11-13 stand rejected under 35 U.S.C. § 102(e), as allegedly anticipated by U.S Patent Application Publication No. 2004/0173422 to Deshmukh *et al.* (hereinafter "Deshmukh"). Applicants respectfully traverse this rejection.

Currently amended, independent Claim 8 is directed to a magnetorheological damper comprising a cylindrically shaped housing; a magnetorheological fluid disposed in the cylindrically shaped housing; a piston assembly disposed within the cylindrically shaped housing in sliding engagement with the cylindrically shaped housing defining a first chamber and a second chamber, wherein the piston assembly comprises an open cell porous media comprising a plurality of fluid passageways extending from the first chamber to the second chamber, and at least one electromagnet centrally disposed in the piston assembly; and a power supply in electrical communication with the at least one electromagnet.

Deshmukh is generally directed to impact absorbers using an energy-absorbing fluid impregnated material consisting of a porous network of solid material.

To anticipate a claim, a reference must disclose each and every element of the claim. *Lewmar Marine v. Barient Inc.*, 3 U.S.P.Q.2d 1766 (Fed. Cir. 1987). Applicants contend that Deshmukh fails to disclose both "a piston assembly disposed within the cylindrically shaped housing in sliding engagement with the cylindrically shaped housing defining a first chamber and a second

chamber, wherein the piston assembly comprises an open cell porous media comprising a plurality of fluid passageways extending from the first chamber to the second chamber" and "at least one electromagnet centrally disposed in the piston assembly".

The Examiner's attention is respectfully directed to the Figures and Specification of Deshmukh. Specifically, none of Figures 7-10, which illustrate the various dampers disclosed by Deshmukh, show a *plurality* of fluid passageways extending from the first chamber to the second chamber or an electromagnet *centrally disposed* in the piston assembly.

Figure 7 fails to show even one fluid passageway extending from the first chamber to the second chamber. As described in paragraph [0032] of Deshmukh's Specification, piston is connected to a pushrod that compresses the fluid filled cellular or fibrous matrix during impact. There is no mention of fluid flow in this particular embodiment.

In contrast, each of Figures 8-10 illustrates fluid flow from a first chamber to the second chamber. Although these Figures appear to illustrate two fluid passageways, these Figures are in actuality two-dimensional cross sections of three-dimensional devices and, consequently, when taken in three-dimensions, only one fluid passageway extending from the first chamber to the second chamber exists. This is described in paragraphs [0033] through [0035] of Deshmukh, which are reproduced for the Examiner's convenience as shown below.

> [0033] An alternative embodiment shown in FIG. 8 employs a plurality of axially spaced coils seen at 803 within the walls of a cylinder 805 that contains a fluid-filled matrix 807. **Orifices through the cylinder wall between the coils 803 permit restricted fluid flow from the compressed matrix through the orifices to provide additional viscous energy dissipation.**
>
> [0034] In the further embodiment shown in FIG. 9, the piston 903 carries a permanent magnet 905. **The outside diameter of the piston 903 is smaller than the inside diameter of the cylinder 907 that contains the compressible fluid filled matrix 909, providing a restricted passageway through which fluid can flow between the piston 903 and the cylinder 907 during compression, thereby providing viscous energy dissipation which supplements the dissipation in the fluid-filled matrix 909.** It should be understood, however, that active or adaptive control can be achieved even without outward fluid flow, for example, when strains are small.

> [0035] FIG. 10 shows still another embodiment in which the cylinder 1001 houses stacked layers, each layer consisting of a magnetizing coil 1005 and a cellular or fibrous solid block 1006 impregnated with an MR fluid. An additional magnetizing coil 1007 is housed in the piston 1009. **As in the arrangement of FIG. 9, MR fluid, if it is, expelled from the impregnated blocks 1006 flows in the gap between the inner walls of cylinder 1001 and the smaller piston 1009.**
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> (Deshmukh, page 4, paragraphs [0033] through [0035], emphasis added)

With regard to Figure 8, there are multiple orifices in the cylinder wall through which fluid flow may occur. However this is not the same as a plurality of fluid passageways extending from the first chamber to the second chamber because the first and second chambers are not defined by the piston assembly disposed in the housing as instantly claimed. If the first and second chambers are defined by the piston assembly disposed in the housing, then there is only one fluid passageway.

As illustrated and described, the fluid passageway for the embodiments of Figures 9 and 10 is defined by the gap between the inner wall of the cylinder and the outer wall of the piston, owing to their difference in diameter. There are no other fluid passageways.

In addition, Figures 7-10 as well as their descriptions in paragraphs [0032] through [0035], respectively, fail to disclose a centrally disposed electromagnet within the piston assembly. Specifically, Figure 7 discloses an axially disposed electromagnet, Figure 8 fails to show any electromagnet within the piston assembly, Figure 9 illustrates a permanent magnet that is not centrally disposed, and Figure 10 (like Figure 7) discloses an axially disposed electromagnet.

Deshmukh clearly fails to disclose each and every element of Applicants' claims. Accordingly, Applicants respectfully request withdrawal of the rejection to Claims 8 and 11-13.

Claim Rejections Under 35 U.S.C. § 103(a)

Claim 14 stands rejected under 35 U.S.C. § 103(a), as allegedly unpatentable over Deshmukh in view of U.S. Patent 6,279,701 to Namuduri *et al.* (hereinafter "Namuduri"). Applicants respectfully traverse this rejection.

For an obviousness rejection to be proper, the Examiner must meet the burden of establishing a *prima facie* case of obviousness, i.e., that all elements of the invention are disclosed in the prior art.

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In re Fine, 5 U.S.P.Q.2d 1596, 1598 (Fed. Cir. 1988); *In Re Wilson*, 165 U.S.P.Q. 494, 496 (C.C.P.A. 1970); *Amgen v. Chugai Pharmaceuticals Co.*, 927 U.S.P.Q.2d, 1016, 1023 (Fed. Cir. 1996).

Claim 14 depends from, and ultimately includes all elements of, its base claim (i.e., Claim 8). For the reasons discussed above, the primary reference, Deshmukh, fails to disclose (or even suggest) all elements of currently amended, independent Claim 8. Namuduri fails to compensate for the deficiencies of Deshmukh.

Because the combination of references fails to teach or suggest Applicants' claimed magnetorheological damper, withdrawal of the rejection is respectfully requested.

It is believed that the foregoing amendments and remarks fully comply with the Office Action and that the claims herein should now be allowable to Applicants. Accordingly, reconsideration and allowance are requested.

If there are any additional charges with respect to this Amendment or otherwise, please charge them to Deposit Account No. 06-1130.

Respectfully submitted,

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